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CONTENTS

What are the Criteria of Levels? GEORGE P. CONGER 589

Evil, Omnipotence and Time: ANDERSON WOODS 598

The Function of Esthetic Experience: VAN METER AMES 603

Book Reviews:

Congrès des sociétés philosophiques américaine, anglaises, belge, italienne et de la société française de philosophie: THEODORE DE LAGUNA 609

Journals and New Books 613

Notes and News 616

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THE JOURNAL OF PHILOSOPHY

WHAT ARE THE CRITERIA OF LEVELS?

PROFESSOR H. C. BROWN'S paper on levels[1] presents several suggestions valuable for an empirical metaphysics. His paper and mine which he criticizes are in agreement at some points which he does not note. For example, he says that simpler entities which enter into an integration of a more complex level may, like radicles in organic compounds, be incapable of occurring and enduring apart from the structures in which they are found (pp. 114, 118); I try to indicate this by the statement that the process of integration is complicated by differentiation (p. 317). Again, he thinks that the facts about atoms may be interpreted by a biological schema (p. 115), and I refer to the possibility that we must take into account the category of reproduction (p. 316). We both disclaim attempts at ultimate explanations of the "why" of the production of levels (pp. 119, 319). We both emphasize interactions (pp. 120, 316).

At several other points we are in partial agreement. He (p. 114) criticizes my phrase "relative independence"; doubtless "relative individuation," which I have used elsewhere, would be clearer and would accord with his statement (p. 113) that material regions need not have absolute boundaries. I share to some extent his distrust of the terms "higher" and "lower" as applied to metaphysical levels (pp. 114, 309–10); but where he would exclude a mental level because he thinks the impulse to include it comes from an admixture of moral valuations (p. 118), I would maintain that these valuational activities are quite proper to the level which we ourselves occupy (p. 319).

Appreciating the aptness of the phrase, I would agree that there may be on the whole a sort of "statistical identity" about the universe so that both integration and disintegration are continually occurrent without recognizable temporal priority (p. 115); but I would qualify this by maintaining that at least locally, here in the earth and perhaps in our system of reference, some priorities and sequences are evident and significant.

The chief points of difference in the two papers may be said to

[1] "A Materialist's View of the Concept of Levels," this JOURNAL, Volume XXIII, pages 113–120 (1926); referring to my paper, "The Doctrine of Levels," this JOURNAL, Volume XXII, pages 309–321 (1925).

concern (1) a definition of "level," (2) the inclusion of the solar system, unicellular organisms, mental activities, and social groups in the list of levels, and (3) the relation of the category of integration to the categories of whole and part.

(1) Dr. Brown would confine the concept of a metaphysical level to a group of entities that are exemplars of the same set of specific laws. He says that when the occurrence of properties on one level may be correlated with a structural analysis of the entities on that level in terms of entities on another level we can call the first the next more complex and the latter the next simpler level (p. 114). His definition seems at first sight simpler and clearer than any hitherto proposed; but I think its apparent simplicity and clearness are due to some presupposed meaning for the terms "set" and "specific" (if not even for the term "law"). Just what is a set of specific laws? One can, of course, select widely different structures, such as atoms and men (p. 114), and infer that these severally exemplify their sets of specific laws. But if one considers more of the structures and processes which, at least in our portion of the cosmos, seem to intervene between atoms and men, I think one finds more specific sets of laws than Dr. Brown is prepared to accommodate. He says that atoms exemplify specific sets of laws (p. 114) and he accords to atoms and molecules the status of levels (p. 117). At the same time he maintains that we have no adequate grounds for asserting that an electron is different when it is part of an atom from when it is not, or that an atom is changed by becoming a part of a molecule. What, then, are the specific sets of laws which an atom exemplifies and an electron does not, or which a molecule exemplifies and an atom does not? I suppose the answer is, as Dr. Brown says in the case of the multicellular organism compared with a constituent cell, that there results a type of gross behavior with a new set of descriptive laws. This may clarify the relations between atoms and constituent electrons. But if gross behavior, interpreted by the aid of descriptive laws, serves to identify a level, why does Dr. Brown deny the unicellular organisms this status? He admits a difference of kind between living substance and other aggregated states of matter, and interprets the difference as that of properties due to the sorts and arrangements of constituent molecules. But is it not these very properties which are manifest in the gross behavior of the unicellular organism, and must not the set of descriptive laws covering this behavior be specific, at least in the sense that taken together the laws specify the behavior of a cell rather than of a non-living structure? The specific laws may not be easy to formulate, especially from the point of view of materialism; but at least they might be

formulated separately, as if for non-living matter, and then stated together in a "set."

Thus it seems to me that Dr. Brown does not make adequate use of his criterion of sets of specific laws; but, on the other hand, I fear that the criterion as stated is too loose. Is it not possible to formulate sets of specific laws which will describe the gross behavior of an ocean, or a lung, without making it necessary to admit these things to the hierarchy of levels? Unless the degree of specificity is indicated, the criterion of sets of specific laws is too abstract and indefinite to serve in identifying the levels of nature; and before the degree of specificity can be completely indicated, the levels themselves must have been identified in some other way. I would say that this identification must be made concretely, with the fullest possible view of the data of the sciences, no matter how "complicated" such data, or one's interpretation of it, may be.

(2) Having already mentioned some of the points listed under (2), let me indicate some reasons why I think of mind in terms of differences of level. Dr. Brown (p. 118) says that mental life seems to be the consequence of the presence of an "organic radicle," or differentiated set of cells in the organism. Certainly the nervous system appears as a differentiation, and in this respect it is comparable to the stomach or the lungs. But it is equally clear that after nervous structures have begun to be differentiated their development proceeds to strikingly different results. The nervous system, as every one agrees, is the chief agent in coördinating the activities of the other parts of the body. Sherrington's significant phrase for this is "the *integrative* action of the nervous system"; I think that this integrative action, when properly traced out, is enough to exhibit the nervous system as a system of levels.

There are some special difficulties connected with the adequate study of the nervous system as a system of levels. In the first place, it is not enough to consider the system in the human individual, even though various recognized neurological and psychological theories of levels may be invoked in one's aid. The nervous system of any human individual, at least after birth, develops as a whole, and his reflexes and complexes can usually be studied better as differentiations than as integrations. Nor does human embryology exhibit the levels clearly; the phylogenetic process is here obscured by ontogenetic modifications. The clearest examples of difference of neuropsychological levels are found scattered through various lower animal species, and one of the striking things about the examples is that they are approximately correlated with the evolutionary series in biology.

Even when one becomes accustomed to looking from one species

to another for examples of the neuropsychological levels, there is a good deal of difficulty in distinguishing the relatively individuated units or entities at each level. One must somehow do justice to the non-nervous structures (sense-organs, glands, and muscles) involved, while keeping sufficiently clear of them to exhibit the nervous processes and their laws. One mistake consists in disregarding these non-nervous structures as if nervous activity had nothing to do with them; another mistake consists in restricting one's attention to structures, non-nervous or nervous or both. On the one hand, the individuated units of nervous development ought not to be thought of without their appropriate receptors, effectors, and reënforcing mechanisms. Dr. Brown's point, that in the case of an electron integration should be regarded as including parts not ordinarily taken into account (p. 120), might in principle be applied here. On the other hand, the nervous system must be considered not merely as so many structures, but as structures activated and at work in characteristic ways. Just as in biology we commonly take account of living organisms and, except for purposes of relatively easy structural comparisons, neglect dead organisms unless the substance of the latter is again incorporated into some of the former, so in neuropsychology we ought to take account of active receptors, reënforcers, adjustors, and effectors, and neglect for the time being any other temporarily non-activated or relatively inactive structures. If it could be understood that we mean always to include the activities of receptors and effectors as well as adjustors, that we mean never to imply that nervous activity goes on disembodied, without structures, and that we mean sometimes to make the term cover complicated activities prolonged in time, we might call the unit of neuropsychological development the *impulse* and study impulses at various levels of integration. I shall attempt to identify some of these levels in the next section.

(3) The relation of the category of integration to the categories of whole and part involves many ontological questions and has the peculiar difficulty that, if examined in abstract terms, it stands squarely in its own shadow. One can not adequately discuss integration into wholes when abstraction must be confined to parts. The more one struggles with the theories of aggregation, integration, disintegration, and differentiation, the more difficult it becomes to frame any precise statement which will cover the data of the sciences and provide for observed inter-relations. Without as yet attempting such a statement, and so without approaching the problem of levels from this angle on its abstract side, I should like, in connection with Dr. Brown's criticism of my list of levels, to indicate what seem to be some significant features of the data. I include provision-

ally among the data some units and processes which have been inferred, as well as others which have been observed. In order to exhibit the significant features I neglect many details and devote one brief outline paragraph each to cosmogonic, biological, and neuropsychological data, respectively.[2]

Cosmogonic.—In (*a*) an æther or space-time, which remains among the conditions for all the developments about to be noted, occur (*b*) relatively individuated energies or lines of force, which may become associated, linked or concentrated in (*c*) electrons and protons. The electrons and protons are probably not formed independently (Brown, p. 115) and may not exist apart from each other, but may at once constitute (*d*) atoms of hydrogen or helium, which absorb and emit energies and which in turn are combined into (*e*) more complicated atoms. Vast accumulations or aggregates of these atoms, some of which are perhaps the results of processes suggesting reproduction and exhibiting variations (*cf.* Brown, p. 116), are found in (*f*) diffuse or irregular nebulæ. Probably it is within such diffuse nebulæ that (*g*) planetary and ring nebulæ are gradually differentiated and that, as a result of further differentiations, perhaps after successive fissions, (*h*) stars appear. Of the (*i*) planetary bodies, the so-called planetesimals may originate independently of stars, as modifications in the nebulæ; but, according to Chamberlin, the more highly differentiated planets are the results of interactions ("near approaches") of stars. Doubtless stars and planets, from the first differentiation of the latter and with no more integration

[2] The three paragraphs which follow at this point summarize very briefly some recent work on the "hypothesis of epitomization" developed tentatively in Appendix B of *A Course in Philosophy* (1924). The lettering in the three paragraphs indicates that according to the hypothesis the cosmogonic, biological, and neuropsychological cycles can be correlated at these points. The terminology and correlation vary somewhat from those of earlier tentative lists. Of course, there are vast differences between the cycles, as there are between levels, but I think the differences themselves become most significant for metaphysics when regarded in the light of the striking resemblances. Each entity at its own level interacts in its own way—with its own set of specific laws—with the entities of other levels; exhibits characteristic processes of repeated production or reproduction at its own level, thus making possible interpretations in terms of biological schemata; and is in its own way aggregated, integrated, disintegrated, or differentiated in entities of other levels. All these processes introduce countless differences, but still certain primary resemblances of pattern seem to persist. The relations of entities of each level to one another and to entities of other levels indicate that, with all its progressive diversities of detail, including differences of magnitude, numbers of entities, time-span and intricacy of operations, nature exhibits a cumulative coördination of processes, first in the living as compared and contrasted with the non-living, and then in the mental as compared and contrasted with the non-mental. It is this cumulative coördination, I think, which gives our minds their place in the universe.

than is implied in mutual adjustments like "spacing out," constitute (*j*) solar systems. Among planets in solar systems we are especially concerned with (*k*) the earth. Differentiations in stars and planets result in the formation of (*l*) molecules, which are combinations of atoms united by valence electrons, (*m*) molar masses, and (*n*) gross features of stars like the sun's photosphere and of planets like the earth's atmosphere, lithosphere, and hydrosphere. At least in our planet occur the differentiations of (*o*) crystals and (*p*) inorganic and organic colloids which lead to the development of living organisms of various kinds as traced in the next paragraph. Planets, with the suns upon which they depend, probably usually belong (as the result of processes of integration, differentiation, or both) in more and more inclusive entities—(*q*) star clusters, (*r*) galaxies or spiral nebulæ, and (*s*) the totality of all these which constitutes the physical cosmos.

Biological.—In (*a*) an inorganic environment, which remains among the conditions for all the developments about to be noted, occur (*b*) relatively individuated organic compounds which may become combined in (*c*) linin or other oxyphilic substance or substances and chromatin or other basophilic substance or substances. The linin and chromatin may not be formed independently nor exist apart from each other, but may constitute (*d*) infra-cellular organisms (*cf.* theories of micellæ, biococci, *etc.*) which ingest food and excrete waste, and which in turn, according to a number of theories, are combined into (*e*) more complicated unicellular organisms. Large aggregates of these organisms, which are the results of processes of reproduction and exhibit variations, are found in (*f*) bacterial and protozoan populations. Probably it is within such populations that (*g*) colonies or colonial masses of unicellular organisms are gradually differentiated and that, as a result of further differentiations, after successive reproductions, (*h*) plants appear. Of the (*i*) animals, some of the simpler forms may originate independently of plants, as modifications of colonial forms; the more highly differentiated are the results of interactions (sexual reproductions) of animals.[3] Plants and animals, from the first differentiation of the latter and with no more integration than is implied in mutual adjustments, constitute (*j*) groups or societies. Among animals in groups or societies we are especially concerned with (*k*) the human species. Differentiations in plants and animals result in the forma-

[3] The process of reproduction here is much more frequent, specific, and precise in the biological cycle than at the corresponding level in the cosmogonic cycle. Thus planets may arise from very infrequent approaches of stars, but animals (unless in very primitive cases, perhaps with characteristics like those of the slime-molds) arise from the relatively frequent reproductive processes of animals, rather than of plants.

tion of (*l*) groups of specialized cells united either by cytoplasmic structures or in cytoplasmic functions, (*m*) tissues, and (*n*) gross features of plants like the cortex and of animals like the ectoderm, endoderm, mesoderm, and their derivatives. In animals occur the differentiations called (*o*) metabolic gradients and (*p*) organs, which lead to the development of nervous impulses of various kinds as traced in the next paragraph. Human groups—and with them should be counted the plants upon which they depend—usually belong (as the result of processes of integration, differentiation, or both) in more and more inclusive entities—(*q*) tribes, (*r*) nations, and (*s*) the totality of all these which constitutes the "Great Society."

Neuropsychological.[4]—In (a) animal bodies, which remain among the conditions for all the developments about to be noted, occur (*b*) relatively individuated impulses of multicellular arcs (as in the neuroid conduction of sponges) which may be combined in (*c*) impulses of fibrils and perikarya.[5] The impulses of fibrils and perikarya may not be set up independently nor exist apart from each other, but may constitute (*d*) impulses of ganglionic cells (in primitive cœlenterates) which in turn are combined in (*e*) more complicated protoneuronic impulses. Aggregates of these impulses, which are perhaps the results of processes of dynamogenesis[6] and which exhibit variations, are found in (*f*) the diffusely conducted impulses of nerve-nets. Probably it is within such diffusely conducted impulses of nerve-nets that (*g*) impulses of nerve-rings (as in Hydromedusæ) and of other primitive ganglionic systems are gradually differentiated, and that, as a result of further differentiations, after successive processes of dynamogenesis, (*h*) impulses or reflexes of the autonomic type (as in annelids) appear. Of the (*i*) reflexes of the various primitive brain systems and later cerebro-

[4] Perhaps one may repeat that, as was indicated above, neuropsychological entities are regarded as impulses, that they include the activity of receptors and effectors, and that their developments are to be traced in various species of animals.

[5] The assumption is that here functioning promoted structuration; that in the primitive (cœlenterate?) organisms delicate neuroid impulses, incessantly repeated or crossing one another's paths along gradients, developed in some of the cells labile structures (fibrils and perikarya) in which energies were stored at slightly different potentials. The fibrils and perikarya amid the intersecting impulses of multicellular arcs are analogous to electrons and protons in their surrounding energy fields and to linin and chromatin amid their surrounding organic compounds.

[6] "Dynamogenesis" as used here indicates the "circular" process in which the response to a given stimulus serves as a new stimulus. Thus impulses and reflexes multiply by a process analogous to the formation of new atoms from helium nuclei emitted from radioactive atoms and to the reproduction by fission of new cells from parent cells.

spinal systems, some of the simpler forms doubtless originate independently of the autonomic reflexes, as modifications of the impulses of the primitive systems due to new external stimuli; but the more highly differentiated forms are the results of interactions of reflexes.[7] Autonomic and cerebro-spinal reflexes, from the first differentiation of the latter and with no more integration than is implied in mutual adjustments, constitute at least rudimentary (*j*) complexes or configurations. Among cerebro-spinal reflexes in configurations we are especially concerned with (*k*) ideas. Differentiations in autonomic and cerebro-spinal reflexes—particularly evident under certain experimental conditions—result in the formation of (*l*) simple or segmental reflexes, which are combinations of receptors, conductors, and effectors, united functionally, if not structurally, by fibrils at synapses, (*m*) complex reflexes, sometimes with (*n*) elaborately differentiated peripheral, central, and intermediate components. Nothing is known of any differentiations which might lead to development in cycles beyond the neuropsychological; it might be noted, however, that here is a place, if there is any place at all, for intuitional patterns or schemata suggesting some open future possibility of a realm like that which Alexander has made worthy of mention under the term "deity." Be this as it may, in man the cerebro-spinal reflexes, together with the autonomic which certainly condition them and upon which they are sometimes said to depend, may belong (as the result of processes of integration, differentiation, or both) in more and more inclusive entities—(*q*) sentiments, (*r*) values or ideals, and (*s*) the totality of all these which constitutes personality.

This survey, imperfect as it is, makes it appear very difficult to identify the levels of nature in terms of integration. For instance, each term lettered *f* is, if anything, a case of aggregation. At least some of those lettered *b*, *c*, *d*, and *e* may, as Dr. Brown partly suggests, be results of disintegration. Those lettered *b* and *g*, as well as *l*, *m*, *n*, *o*, and *p*, if not also others, seem to be cases of differentiation. The integrations of *d* and *j* seem to be cases of staying together rather than getting together. Integrations of *q* and *r* are hard to make out because of the indefiniteness of these structures and their processes. Each *s* is a totality or whole, and, as Dr. Brown brings out (p. 115), may not need a hierarchy of preceding integrations in

[7] The production of cerebro-spinal reflexes by the interaction of other reflexes is more frequent, and, if we may judge from habit formation and learning in animals and from processes of exact reasoning in man, is also more specific and precise than are the corresponding processes of reproduction in the biological cycle. Cerebro-spinal reflexes (unless in primitive cases, in accordance with Kempf's view that the cerebro-spinal system is essentially a projection of the autonomic) arise from interactions of other cerebro-spinal reflexes, for example in "conflict of tendencies" with modified action as a resultant.

order to exist. On the other hand, each *e* may represent repeated or compound integrations which do not mark real differences of level; similarly, the terms "organic compounds" and "cerebro-spinal reflexes" may cover several successive integrative processes.

It is clear enough, I think, that we need a more adequate conception of integration. Dr. Brown and I both noted in different ways, as pointed out above, that this process or category must be considered along with the processes or categories of relative individuation, interaction, reproduction, and differentiation. Any entity which is to be integrated into some other entity must be relatively individuated in order to exist, must interact with its milieu in order to persist, and perhaps also must reproduce its kind in order to have additional entities like itself with which to be integrated into anything more inclusive. I think most of the difficulties concerning the relations of integration and differentiation are removed if we remember not merely that the two processes overlap or converge, for example in the production of cells, but also that any supposed process of integration may be from other points of view a process of differentiation. Perhaps we should think of both integration and differentiation as processes of *segregation* within some more inclusive field or milieu or whole. The differences between the two types of segregation may be to some extent only apparent differences due to perspectives from the particular point of emergence from which we human beings have to regard the cosmic processes we are examining. But, at least from our human point of view and within the limits of our investigations, the test for difference between integration and differentiation may be that those segregations which we call integrations are able to repeat as segregations, with sets of specific laws, the processes of interaction, reproduction and (most essentially) incorporation into new segregations which, relatively individuated, can go on exhibiting the same processes or categories again, and perhaps yet again. The tests for integration, and with them the criteria for differences of level, are to be found not merely in terms of the constituent elements of which any given entities are made up, but also in terms of new entities which the given entities help to make. The important point is not that certain segregations appear, but rather that some of the segregations which appear turn out to be steps in a long cosmic process of cumulative coördination. Judging by this criterion I should say, without being able here to defend my selections in further detail, that the entities which on the whole have the best claims to the status of levels are those lettered *b*, *c*, *d-e* (hyphenated because possibly together constituting only one level), *g-h-i-k*, *j*, *q*, and *r*. When I consider their lack of further progressive integrations I am in doubt about *l*, *m*, and *n*, although there are

arguments for admitting a molecular level. I think that *o* and *p*, where they occur, are covered by *b* of the following paragraph. The terms lettered *s* raise peculiar difficulties.

Lest this paper occupy too much space-time, I will conclude with two remarks. First, some of the objections to the terms "higher" and "lower" levels might be removed by considering all the segregations, in accordance with the work of Köhler, in terms of figures and grounds. Finally, among all the vast complications of detail, we ought not to neglect possible comparisons as well as contrasts between the realms of matter, life, and mind. Whatever entities have or do not have the status of levels, certainly these three realms must be of major importance in metaphysics. When the three realms are studied, is there not some reason for the possibility of such point-to-point correlations as are roughly indicated in my three outline paragraphs above? I believe that empirical evidence and plausible inference can be marshalled in support of Lloyd Morgan's statement that "life stands to matter in the same kind of relation as mind stands to life."[8]

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EVIL, OMNIPOTENCE AND TIME

THE solution—if that is the correct word for it—here offered for the ancient "problem of evil" is so simple that it can hardly be new under the sun. I believe that something like it was put forth among the teachings of the Stoics. At any rate the problem still appears a real one for the public of our day. Else why the host of superficial attempts at solution which one reads in current books and hears from present-day pulpits? Why did William James, only a generation since, in "The Dilemma of Determinism,"[1] express the feeling (I do not quote him literally) that the Brockton murder could not be integrated into any system or plan of the universe, and must therefore be attributed to the evil will of the murderer as a first cause?

Now, I must confess that to take the blame for evil off God and throw it on man, does not help the matter a bit for me. If God is my father, men are my brethren, and I am no happier in thinking ill of them (in the ultimate sense) than of Him. Evil is not banished from the universe by referring it to a cause supposedly not a part of the universal order or design.

[8] L. Morgan, *Emergent Evolution* (1923), p. 29.

[1] *The Will to Believe and Other Essays*, pp. 160, 177.

Evil, in the common-sense meaning of the word, truly exists, and the contrary can not be shown. But when the idea is sufficiently analyzed it is found to involve no universal problem. The "solution" or "answer" here propounded is rather an explaining away of the problem itself, a showing of the question to be a *pseudo*, instead of a real, question.

Good and evil, upon analysis, are seen to be merely comparative, and at the same time antithetical. Otherwise stated, the greatest degree of good is the smallest degree of evil, and *vice versa*. Other similar pairs of comparative antitheses are pain and pleasure, heat and cold,[2] high and low, east and west. To be without evil is to be perfectly good; to be without good is to be perfectly evil; but perfection is inconceivable. As the two opposites are in the nature of directions, like east and west, complete attainment of one or the other is unthinkable. It is as meaningless to talk of a perfectly good world as of one entirely eastern. Like the infinity of space is the infinity of potential good—*i.e.*, good of which it is possible for the mind to conceive.

The things in the universe which we call evil are so called by reason of contrast with the ideas in our own minds of better things, which by comparison are good. Do not misunderstand: the fact that these comparisons are made by the mind itself does not make them the less true, or the less important, as comparisons of one thing with another. The point is that they are nothing *more* than comparisons of one thing with another, and have no more relation to absolute good or to absolute evil than has my garden plot to infinite space. The reason is that both good and evil (as conceptions) are infinite, exactly as space is conceived to be.

Well, what of it? you say; are we to minimize actual, specific evils? Not at all. But surely it is relevant, if you arraign the universe as containing evil and as therefore requiring explanation and excuse, to point out the inconceivability of a universe that was what it ought to be and as to which the same questions would not arise as about the present. And it is surely fair to challenge you to describe your model world, and to state why such a world would be satisfactory.

However, before asking you to do that, I want to interject a reminder. The whole point I am trying to make will be lost unless the reader keeps in clear view the distinction between impossibility and inconceivability. It is, to be sure, no answer to criticism of the universe to point out the *impossibility* of any particular one described by the critic. But it *is* an answer to show that the very idea

[2] True, the physicist has what he calls "absolute cold," but I am using the terms in their popular sense.

falls to pieces when analyzed and can no longer be held in the mind —is seen to be, as I have said, *inconceivable*. Some notions which can be put in words have always been recognized as representing things impossible even to omnipotence, because self-contradictory; as, for example, a square circle; or that a thing should at the same time exist and not exist. The idea of the complete absence of evil is of this character, after careful examination. It comes to be as meaningless as the absence of east or west. The terms "good" and "evil" merely define the relative position of an act or thing in a scale, one direction of which is toward good and the other toward evil.

In every case where I have challenged a general complainant of the universe to picture one with which he would be satisfied, it has developed that his standard of a perfect universe was exceedingly low, by comparison with other standards that could readily be set up. Nor has any such complainant been able to explain why his particular standard, more than any other, should be made the ideal of perfection. Let us examine some of the specific evils which it is proposed to exclude from an ideal universe.

Prominent among these is war—especially such a war as the last, which it is assumed could not have taken place in a properly ordered world. Let us analyze this calamity into its objectionable features. First, we find large numbers of men losing their lives while still young. Not only those who are thus killed, but the community, thus deprived of useful labor, are thereby wronged. But barring war, along with other means by which lives are destroyed in youth, we find that men are *never* (unless under very exceptional circumstances) ready to die; and the question is proper, by what standard would the length of life be fixed in your proposed world? Even the strife incident to the daily struggle for existence shortens life, and the time must come when the forces opposing life, be they social or purely physical, gain the victory. So far as mere longevity is concerned, is it not clear that the evil in the death of a young man is such only by comparison with a more customary length of days?

Passing from the question of longevity to the suffering involved in war, we find that not only is suffering looked upon as a natural precedent to death in peace time, but as a varying incident of life itself, under all circumstances. It is fair, then, to ask you to describe your world without suffering or pain. When you undertake this, you will quickly find the terms in question to have a comparative significance. All so-called positive pains having been eliminated, there would still remain the mental suffering arising from failure to reach joys possible of conception, though impossible of attainment.

But by this time my readers are indignant because the worst evil

of war, *i.e.*, the moral, has not been mentioned. I was coming to that as a climax. This immorality, while various, may be said to consist in the most part of killing—especially the killing of men who, for all the killers know, are as worthy to live as themselves. This is legalized murder, you rightly say; and it will be convenient to consider it along with murder in general. Can any defense be made of such a sin as this? I am not trying to make any; but it remains that a world without murder may be very far from an ideal world. To kill is to shorten life, not of necessity suddenly; it may be as immoral to diminish or impair a life with reference to its content of happiness or of worthy activity, even though its duration be only indirectly lessened or lessened not at all. Scarcely any of our acts are without effect on both the length and the content of the lives of other individuals, and such effect is bound in many cases to be injurious. What sort of behavior will go on in your model world? If you answer that the stress should be transferred from the outward results of our acts to the intent thereof, I may then quote the language of an old book, "Whosoever hateth his brother is a murderer," and remind you that long before the point of hatred is reached, the disposition of every man toward his fellows contains some element of ill.

Whether we consider the intent or the outward consequence, it is a very elementary morality that aspires to nothing better than compliance with the conventional code and is satisfied with abstention from the most outstanding crimes of the age, as murder and robbery. Upon a little thought it becomes clear that the same principles underlying the prohibition of these obvious offenses against the general welfare make it obligatory on the individual to behave in other ways to promote positively the same general welfare. If certain acts are forbidden because they are injurious, there is every reason why certain other acts should be enjoined because beneficial.

Murder and robbery are now regarded as extraordinary evils, not only by reason of the damage they do, but also because they have become unusual. We may well imagine a state of society wherein not only are these gross misdeeds unknown, except historically, but in which coöperation and fraternity have advanced to such a point that even a slight infraction of courtesy, no more than an angry word or a frown, attracts publicity in the degree now measured by a newspaper article. That will be a state much beyond a general compliance with the conventions of the present day; but it will not satisfy. With all these attained, higher and higher things will enter our vision.

No imagined standard of good can be shown to be insurpassable

or unimprovable. By what right, then, is any one of us to set up his particular standard and to say that if the cosmos reaches that it is perfect, or, if falling below, imperfect? Clearly, there can be no limit to the improvement which can be desired or conceived; as soon as one advance is made, the prospect of another enters the mind. Is it not true, then, that perfection is unthinkable, inconceivable, and that any particular state of advancement becomes unsatisfactory merely because the mind has conceived a better state as lying beyond? If this view be sound—as I think must be admitted—then, indeed, evil in the comparative sense does not cease to be, but the question, Why is evil? is reduced to an absurdity. No God, however powerful, could bring about a condition the improvement of which could not be thought of or desired.

The question remains, to be sure, how can the existence of relative evil, such as we have seen can not be eliminated, be reconciled with the existence of a being all-loving and all-powerful? Have we here a paradox, a contradiction, which can not be reasoned away?

The difficulty seems to reside in the current notion of omnipotence. It is the result of the futile effort to entertain in the mind the idea of infinite power being exerted at a single instant, or within a finite period of time. Even if that could take place, we can not imagine the result, since it would be a finished universe—a thing already shown to be inconceivable. If we could imagine the instantaneous exercise of infinite power, we should indeed have a paradox; this conceivability would be inconsistent with the inconceivability of the result of such exercise. But consistency is preserved; we can not imagine the process or the act, any more than its consequences. All our experience of the thing we call "power" shows that every manifestation thereof requires some time, as well as some space. What does infinity mean in reference to such a thing as power? Not only infinite intension, but infinite extension as well; the absence of limit not merely in what power accomplishes, but as truly in its space-time, *i.e.*, in the field of its operation and in the duration thereof. Vague as the notion of infinity is at best, one thing is clear, that no infinite thing can be compressed within a finite thing. Infinite power, then, can not be thought of as having done all its work within finite time and presented us at a given instant with infinite good, no matter at what point along the stretch of time we take our position and make this demand.

Our difficulties in regard to infinite good and infinite power are parallel, and when viewed simultaneously fuse into one. In each case there is prevalent a failure to take account of the great factor of *time;* perhaps I should say, more specifically, of the *future.* Suppose that infinite power had finished its work and should at this in-

stant deliver to us infinite good; what would then be done with or about the future? We can not conceive a stoppage in the work of improving the universe either at the power end of the process or at the achievement end—since both the power and the need are unlimited. It is as though space, instead of time, were the factor neglected; as though we drew an arbitrary line across the world, even the known world, and said, Let Omnipotence exhaust itself in making the eastern hemisphere perfect, leaving the western half to go to the devil. Exactly the same unreason is seen in the proposal to divide the future from the past by the arbitrary line we call the present, and to say, everything must have been finished in the past; the future has no claims to further effort on the part of the universal Will!

Just as every observation of the physical world requires a point in space for location of the observer, so there must be a temporal point of observation, *i.e.*, a *present*. This temporal point is not selected freely, any more than the spatial viewpoint is so chosen; the *present* of the observer is just where (or rather *when*) he happens to be on the occasion of looking, and with reference to the cosmos as a whole it is as arbitrary as the spatial viewpoint. As it would require a mind capable of comprehending all space at a glance, so it would call for one knowing all time at a single instant, to contemplate the complete work of Omnipotence. Viewing the cosmos from a single point in space-time and with limited vision, such contemplation is beyond our powers.

A finished or perfect universe, *i.e.*, a universe without evil, is thus seen to be inconceivable, and the question, "Why is evil?" has no longer any semblance of meaning.

ANDERSON WOODS.

BROOKLYN, N. Y.

THE FUNCTION OF ESTHETIC EXPERIENCE.

THE esthetic attitude is located where the flow of habitual activity has been checked by a problematic situation, in the lull before reflection sets in. When we go on to reflect, to form a hypothesis and attempt a solution, we go beyond the esthetic stage to that of reflection. As Santayana says, "Man's intellectual progress has a poetic phase, in which he imagines the world; and then a scientific phase, in which he sifts and tests what he has imagined" (*Reason in Art*, p. 76). This is the relation of art to thought. Art presents the data in a problem for their own sake; thought goes on to test them for action. When art is critical, as in George Meredith, it approaches thought; when science is in the stage of gathering data

and imagining a picture into which they will fit, it is still in the esthetic phase. As science advances it admits its earlier achievements to have been imaginative and artistic, valuable chiefly through their collection and conservation of data. Thus astrology accumulated and kept data which were later of use to astronomy; alchemy did the same for chemistry; and the imaginative maps of early travelers, decorated with sea-monsters and gold mountains, did the same for geography.

"Out of the space between an impulse and a reaction there arises an idea or 'presentation,'" says Jane Harrison. "A 'presentation' is, indeed, it would seem, . . . only a delayed, intensified desire—a desire of which the active satisfaction is blocked, and which runs over into a 'presentation.' An image conceived 'presented,' what we call an *idea* is, as it were, an act prefigured" (*Ancient Art and Ritual*, p. 53). That is to say that ideas appear within a problematic situation as foreshadows of its solution. They are the first response to the problem—simply looking at it. While we are looking, the elements in it which will enable us to deal with it begin to appear. These are the cues for response to the situation, they are its values; and contemplation of them constitutes the esthetic experience. Art is the artifice for objectifying these values in order to facilitate our attention to them. Art never solves a problem; it merely represents the values which any solution must take account of. When we go on to test the representation of art, to reduce its epicycles to simpler laws, we leave the esthetic attitude for that of reflection.

Art directs our attention to values. Values, or cues for response to a problem, are esthetic so long as they are attended to solely for their own sake. They are appealing, they are beautiful, because they are the very factors to which some problem has sensitized us, the elements in a problematic situation which will release our response thereto. Esthetic values are ultimate because they must appear in the final solution, though they then cease to be esthetic, since the moment a solution is reached the attention is released, and the values achieved are simply accepted. When the problem is at least temporarily solved, experience is redintegrated; those aspects which had been conspicuous through their problematic character become taken for granted among our comfortable habits; they get broken in, like old shoes which no longer shine as they did, yet neither do they hurt nor make us fearful less we hurt them. Much as we enjoy the esthetic phase of experience, we are pleasantly relieved after it is over, the sweetest sleep following the sweetest excitements.

The moral attitude is concerned with bringing about the solution

of a problem; the scientific attitude deals with the means for its attainment; the attitude of day-dream or make-believe presents the values as if they had been attained; but the esthetic experience stops with contemplation of the values for their own sake, without attempting to actualize them, and without dreaming that they have already been achieved. To strive to realize them is to leave the esthetic phase of experience for the moral or the scientific stage; to succeed in realizing them is to win surcease and sink back upon the couch of unconsciousness, whence all experience arose.

In order to remain esthetic, values must arise within a situation that remains problematic. Such a situation is the one of physical conduct in general, which, being constantly in adjustment, always retains a problematic character. It sensitizes us to stimuli which call out responses tending to maintain and refresh our organism. These stimuli are our physical values, and their attractiveness is as permanent as our physical problem. Automatically found in nature, in art they are focussed and harmonized to facilitate our response. It is because we are ever seeking physical adjustment and balance that we find beautiful a landscape, a statue, a temple, or a symphony, which gives us a harmony of physical values that enhances our visceral and circulatory response of respiration, equilibrium, and cardiac action.

Then, our social as well as our physical conduct is constantly in adjustment, so that we are always on the lookout for social as well as physical values. We look for them in social intercourse itself, in the human-interest stories of the newspaper, in the motion pictures, in poetry and drama, but chiefly in the novel. That these agencies all supply hints for the understanding of social life and the conduct of it, accounts for their popularity; but only the long flexible form of the novel is adequate to the representation of the values of personality, the slow building up of character, which is the central part of our social problem. Most of our esthetic values arise within the frames of these two general problems, the physical and the social, though any values become esthetic when they are attended to solely for their own sake, without any ulterior purpose. Thus esthetic experience is not a separate kind of experience. It occurs in any department of life at the moment when values, the cues for response to a situation, monopolize attention. It is the joyous moment when, out of the perplexity of the problem, we find just what we were (perhaps unconsciously) looking for. Art helps us to find values by representing them so that we can see them clearly. Physical values are the sphere of sensuous art, social values of literary art. There is an aspect of the literary in sensuous art; and there is a phase of the sensuous in literature. Literary art is

increasing in importance with the growing importance of social conduct in civilization. The novel has become the dominant literary form, because it most adequately depicts social values. The joy of sensuous art lies in the response of the physical self; the zest of the novel lies in the response of the social self. The novel is, then, to be judged by its satisfaction to our social capacities. Sensuous art stimulates primarily the body, it is athletic; the novel stimulates primarily the personality, it is social.

To say that art is refreshing to man's physical self, that it presents him with physical values, is not to use "physical" in the abstract and recent sense of physical science (which has been cut under by more recent biological science), but in the athletic and ancient sense of the animal organism. The physical self is here thought of as the body contrasted with the social or civilized self; it is not thought of as a machine of mass particles over against a pure spirit, neither of these notions being tenable to contemporary thought. What is meant by saying that art is physical or sensuous while literature is social, is that we get from the former more of the stimulus which nature and athletes give us, while we get from the latter more of the stimulus which society gives us, though neither stimulus is ever pure and unadulterated by the other. Art and literature do not take sides in the obsolete Cartesian dualism, but in the ever-present psycho-physical dualism, that between the physical self and what is regarded as the higher, more spiritual self, the self that lives in society, that is constituted by its contacts with other personalities, the self that lives by books as well as bread, which arises in a body, but escapes by its power of imagination to other bodies, or transcends them all to contemplate God, freedom, and immortality. In terms of this psycho-physical dualism art is on the side of the athletes and literature on the side of the angels. Art represents the values answering to the problems of the physical self. Its plastic form is an integration of all the plastic qualities of color, light, line, and space, facilitating a corresponding integration in the responses of the body to these stimuli. But literature presents the values in the problems of the social self, problems of love, religion, education, politics, and law. Art also ministers widely to the social self, but it can not compete in this sphere with the social art of literature. If it could, people would not read novels as they do, hardly knowing pictures except as illustrations of stories. When the social self was less developed and complex, art was able to satisfy its needs, but with the modern intensification of self-consciousness, the social self has come to require literature. And it is interesting that lovers of art, recognizing its inability to rival literature on this terrain, have given up the contest almost altogether, declaring that literary or

social values are foreign to art, that art is properly concerned solely with physical or plastic values. They say that only the title of a work of art is literary, its subject is always sensuous. Art, they say, affects the social self indirectly through its effect upon the senses: it can thus induce a mood or state of mind, but it is not its province to attempt more than that in the social sphere. Enlightened art critics seem concerned almost entirely with overcoming naïve interest in the superficial literary aspects of a work of art, directing attention to its proper plastic qualities. Modern artists are constantly learning new things about plastic form; their work is simplified when they are relieved of responsibility for literary values; and appreciation by the public is facilitated when it is educated to concentrate upon the heart of the matter, no longer confused and befuddled by a mistaken preoccupation with values which are secondary or even irrelevant to plastic form.

There is here no intent, then, to divorce sensuous from social values. They are as close as body and mind; just as an effect upon the one always affects the other, so physical values always have social value, and *vice versa.* If a painting refreshes the body it thereby refreshes the mind; and if a novel stimulates the mind it can not fail to tone up the body. All that is here intended is to establish a distinction of emphasis. Art is primarily sensuous, literature primarily social.

In so far as the novel, or any form of art, concerns itself with values evanescent or insignificant, it can not be permanent or universal. But great art fits fundamental needs, and that is why the response to it is direct and unhesitating. A great picture is captivating because it vitalizes our whole physical being; a great novel is enthralling because it enhances our whole social self or personality. A novel does this in three ways. It acquaints us with characters we do not meet in everyday life, enabling us to enrich our own character by taking over their rôles. It provides situations for the exercise of parts of our personality which can not breathe ordinary air. Finally, it gives a view of life, and lends us the unifying self of the author as a new synthesis for the multiple selves within us. If the test of sensuous art is in its effect upon the physical self, the test of the novel must be in its effect upon the social self. Those plastic forms are beautiful which arouse a harmonious physical response; those are ugly which, while they stimulate a response, are so deformed that the response is frustrated and baffled. So those books are beautiful which bring out a deep social response of sympathy and tenderness, a new level of love and understanding, a new equilibrium of the personality upon a broader base. Those books are ugly which stimulate narrow interests out of proportion to the wider, which do

not summon the whole personality into new activity upon a higher plane, but tend to lower it and weaken it by a meretricious appeal to particular impulses. Experience is required to tell the difference, but he who has felt the release and exhilaration to be had in good books, will feel cramped and inhibited in those that appeal to only part of his self, or fail to stimulate his highest possibilities and raise him to the apex of his being.

A statue as lumpish as the figures slumping all about us, a picture as ill composed as the scenes that ordinarily bore us, is no more invigorating than they, and we are rightly irritated by it, for the *raison d'être* of art is the enhancement of life. Similarly, a novel as dull and unmeaning as much of life, is futile. But a statue that catches our breath and takes us up on tiptoe, like the Apollo Belvedere, or a novel that lifts us out of our littleness to a universal sympathy, like *Anna Karenina*,—that is worth while.

It is discontent, restlessness, eagerness to get something more out of life, that impels people to novels, and from ordinary to better novels. On the other hand, good novels often promote dissatisfaction with life as it is ordinarily lived. They then not only answer to an existent need, but awaken a new one. The power of problems to produce values is hardly greater than that of values to create problems. Desire makes an end desirable; sight of the end inflames desire. A youth's love will make any maid seem passing fair, but a lass who is surpassing fair will strike sparks from a heart of stone. Unfavorable circumstances make one dream of a better land, but a glimpse of Heaven would make one discontent with the Garden of Eden. Misfortune always tends to arouse sympathy and tenderness, but, when dramatized by a great tragedian and seen at the theater, it will loosen the emotions even of those who are habitually unmoved. A boy naturally values athletic ability in his fellows, but when he sees an Olympic athlete his admiration is suddenly augmented by a glimpse of undreamed possibility. Then he may see a statue by Myron of an ideal Olympic athlete, with the consequence that an appreciation of art is born, art which is the power to embody men's dreams as they had never hoped to see them. The boy's love for art will be akin to his old liking for athletes, but it will be something higher, a desire which can no longer be satisfied by natural forms, but only by the ideal shapes of the sculptor, and not even by them, for the highest art points upward to forms it can not attain, and when one has once been drawn to contemplation of these divine essences, a longing is awakened which nothing on earth can allay. Then one wonders whether the original stimulus was a push from a problem which projected the ideal of its own solution, or a pull from an ideal which threw back the problem of its attainment. Such an

ultimate question is perhaps unanswerable. This we know, that, as we know them, problems do push, and ideals do pull. Problems run up values like flags on a battleship, and values suck problems after them like whirlpools. Sometimes the wish is father to the thought, and sometimes it is the other way. Hunger will arouse the idea of food, and the idea will increase the hunger, whereupon the hunger will strengthen the idea. If a vague velleity causes a hazy idea of its satisfaction, the idea will tend to make the velleity a definite desire, which in turn may make what was a passing fancy a fixed obsession. If a wish fathers a thought, the thought fosters the wish, and there is no stopping, this side of Paradise.

Literature, then, and the same may be said of art, is not simply a refuge and a shelter, but a challenge. Much as it is valued as a solace and a comfort to those who are weary and are heavy laden, as a spice to those who are sleek and surfeited, it is more valuable as a *reveillé* to those who are ready for a new vision, a newly awakened life on a higher level. Shelley said: "Poets are the trumpets which sing to battle, poets are the unacknowledged legislators of the world."

VAN METER AMES.

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BOOK REVIEWS

Congrès des sociétés philosophiques américaine, anglaises, belge, italienne et de la société française de philosophie. Paris: Armand Colin. 558 pages.

After a long delay the proceedings of the Congress of Philosophy, which met in Paris in December, 1921, came to hand early in this year. The editorial work of M. Lenoir, especially in reporting the oral discussions, has been so carefully and thoroughly done, that at least a part of the delay is easily understood. I do not know where else one can find a more instructive picture of the philosophical life of our times, so far as the countries represented are concerned. In 1921 a more general congress was felt to be impracticable; but it is worth recalling that early in the following year the *Société Française de Philosophie* had Einstein as its guest; and the appearance of the first volume of the monumental work on Fichte by the president of the society (M. Xavier Léon) served to show that the international character of philosophical thought had not been deeply affected by the recent conflict.

The congress was divided into four sections, devoted respectively to logic and the philosophy of the sciences, metaphysics and psy-

chology, the history of philosophy, and ethics and sociology; and one general session was allowed to each of these departments. It is impossible to give a general characterization of the congress as a whole, for the diversity of ideas and tendencies represented could scarcely have been greater. Thus, for example, we find Professor Smith of Oxford criticizing the "economic" theory of the concept; Dr. Revault d'Allones sketches out a project for a psychology of schemata; the ingenious Belgian, Dupréel, demolishes the "Socratic legend"; M. Parodi discusses rationalism in ethics; and Mr. Sorley, in his paper on the "Conception of the State," gives an excellent example of empirical analysis by one who would generally be classed as a rationalist. I shall not attempt to give a summary or even a complete list of the papers. The volume ought certainly to be in every important library, and a glance at the table of contents will tell the reader nearly all that I could find place for here. I shall merely say a few words with regard to the papers read at the general sessions, with the addition of one other which has appealed strongly to my own interest.

The first of these sessions was devoted to a discussion of the theory of relativity, which was opened by Miss Wrinch with a paper dealing with the relation between the mathematical and the experimental aspects of the theory. Her main point is that the mathematical theory is now so far developed, that the whole body of relevant facts can be represented in a variety of ways; and that only through further experimentation can the means of deciding between these be found. One passing remark seems to be peculiarly significant for the light it throws on the looseness of the connection which can subsist between mathematical and experimental investigations in physics. "Whether or not the quantum theory will issue from the assumptions or not, we cannot at present say. A universal constant occurs in the theory, which it might have been hoped would prove to be identical with the quantum in the quantum theory, but unfortunately this constant appears to be about ten times too big" (p. 21). In the discussion which followed, M. Langevin gave a brief account of the development of the theory, down to the latest work of Eddington, and suggested that the next step might be marked by the abandonment of the postulate of the continuity of space and time; while M. Painlevé undertook to show that several of the supposed features of the theory, which have made it most attractive to a large section of the educated public, are due to misunderstanding.

At the general session devoted to metaphysics and sociology, two Englishmen read papers: H. Wildon Carr on the "Nature of Scientific Knowledge," and F. C. S. Schiller on "Reality, Fact and

Value." The papers are thoroughly typical of the idealism and pragmatism of to-day. The thesis of Mr. Carr's paper is that "the concept is more original and more concretely real than the percept," and that science by its very mode of procedure is committed to this idealistic position. Dr. Schiller maintains that the distinction between "fact" and "value," and between "objective" reality and the "subjective" valuation of it, can not, as they are currently held, be consistently maintained. Values and valuations are facts. And every fact is a camouflaged group of values; for it is only because it lies in the direction of our interests, that it can become the object of our recognition. The "genuine" fact is one that has survived in a Darwinian struggle for existence, in which the *best* is selected; and if we press the point that it must be absolute and ultimately valid, this merely transforms it into an ideal. Value-judgments enter into and control the whole course of scientific investigation.

One of the most thought-provoking contributions in the volume is that of Dr. Pierre Janet, "Les deux formes de la volonté et de la croyance dans un cas de délire psychoasténique." Behaviorism has been regarded as a peculiarly American theory, and the French in particular have treated it as something outlandish and not wholly respectable. But they have in their midst a most noteworthy behaviorism in the *psychologie médicale* of Dr. Janet—and that not simply as a method of experimental procedure, but as a general theory of consciousness. Consider this, for example: "These two modes of behavior [of his unfortunate patient] may be considered either as volitions or as beliefs, for they have the essential characteristics of both. Will and belief consist in a connection between language and movement, between the verbal formula of an act and the act itself as executed by our limbs, immediately in the case of will, later and conditionally in the case of belief" (p. 158). Dr. Janet has elsewhere given an account of the motives that led him to the undertaking of his *psychologie médicale*. The study of mental pathology in France had exhibited two main tendencies: the one attributing the phenomena to psychical causes, the action of which was essentially capricious; the other insisting on the absolute uniformity of nature and interpreting this as equivalent to materialism. The one sort of theory was beyond the reach of possible verification; the other, for all its claims to scientific exactitude, always broke down. Hence Dr. Janet was led to the conception of a psychology which should be objective without being materialistic—which should recognize to the full the uniformities underlying human behavior, and should study them as observable facts without corrupting them with physiological dogmas. The general purpose of the present paper is

to illustrate Dr. Janet's theory of mental levels, or stages, characterized by different degrees of *tension;* the phenomena of madness exhibited by the patient being explained by a descent to a lower level (*stade assertif*) when behavior had been organized on a higher level (*stade réfléchi*). Incidentally he attempts a parallel between these mental levels in the individual and the mental levels attained by different peoples, thus correlating his own psychopathological studies with the sociological theories of Lévy-Bruhl.

The general session devoted to the history of philosophy was addressed by Dr. Bush of Columbia University on the "Problem of the Relation of Science to Philosophy," and by M. Enriquès on the "Kantian Theory of *a priori* Judgments in the light of the Historical Development of Contemporary Science." The first paper is a piece of plain-speaking ultra-positivism. What has made the distinction between philosophy and science, we are told, is the survival in philosophy of a mass of pre-logical conceptions of an animistic character. In so far as these are gotten rid of, the distinction in question disappears; unless, indeed, philosophy is given a new meaning as the study of man's interest in facts, as distinguished from the study of the facts themselves. There is a further remark, that "the triumph of natural science over animistic supernaturalism has resulted in a materialistic supernaturalism, something perhaps not less superstitious because it uses the language of physics; and this materialistic or realistic supernaturalism is a nest where many problems are hatched today" (p. 251). To what does this refer? Mach, Poincaré, and Dewey are mentioned as critics of this new "supernaturalism"; but no more definite hint is given.

The second paper finds that the rise of non-Euclidean geometry is inconsistent with Kant's theory; first, because it has been shown that the data of perception can be ordered in other forms than the Euclidean, which Kant considered essential; secondly, because it has been shown that the fundamental hypotheses of geometry and of physics are mutually dependent, so that the former can no longer be regarded as logically prior to the latter. Further, the newer developments of theoretical physics are leading to a revision of Newton's fundamental principles, which Kant also regarded as essential to science. Nevertheless, M. Enriquès rejects the conclusion that physical principles have a purely empirical origin. Certain ideas and principles, he thinks, are derived from intuitions or preconceptions, which determine the interpretation of experience. On the other hand, this preconceived mode of interpretation has no fixed significance independently of the mass of facts to be organized. Accordingly, M. Enriquès suggests a new and richer rationalism, dynamic rather than static, according to which reason furnishes, not immo-

bile principles, but rather "the logical criteria of the possibility of representing certain orders of facts by certain systems of concepts" (p. 257).

The last of the general sessions was devoted to a discussion of the new constitution of Germany, its underlying principles and its practical working. In the years that have elapsed, a certain part of what was then said has become out of date; but the whole makes interesting reading nevertheless. According to M. Vermeil, the German constitution represents a struggle between two romanticisms, the one having its roots in the institutions of the middle ages, the other derived from Hegel and Stahl and consolidated with Prussian militarism, but both radically opposed to the individualistic democracy of western Europe. M. Andler offers a more "realistic" interpretation. According to him, the Germans are much more enamored of power than of liberty. They were ready to sacrifice political liberty in order to triumph with Bismarck; and now they have turned to republicanism, because they hope that this will make possible their union with Austria, and hence serve to make them once more a military power of commanding importance. M. Halévy, more temperately, insists upon the gradual development of democracy in Germany, and upon its genuineness. All the speakers are agreed upon one thing, however: the necessity of the resumption of intellectual intercourse with Germany, in order that mutual understanding might reduce as far as possible the danger of a future conflict.

I am afraid that this brief notice is far from giving an adequate notion of the richness of the volume's contents. But only the volume itself can do that. The congress was most ably organized and conducted; and this record of its work will remain as a lasting monument to the wisdom and devotion of its promoters.

THEODORE DE LAGUNA.

BRYN MAWR COLLEGE.

JOURNALS AND NEW BOOKS

SCIENTIA. Vol. XL, N. CLXXIV–10. Il periodo di storia delle scienze dalla morte di Galileo a Newton. Parte II[a]: Da Bacone all'alba del XVIII secolo: *G. Loria.* The relative influence of denudation and earth-movements in moulding the surface of the earth: *J. W. Gregory.* La físico-química y el vitalismo: *J. R. Carracido.* L'évolution future de l'économic rurale: *A. Tchayanaoff.*

JOURNAL OF EXPERIMENTAL PSYCHOLOGY. Vol. IX, No. 5. The Fixational Pause of the Eyes: *P. W. Cobb* and *F. K. Moss.* A Study

of the Phenomenon of Reminiscence: *Osborne Williams.* Racial Differences in the Intelligence of School Children: *F. L. Goodenough.* Anosmia and Its Effects upon Taste Perceptions: *H. R. Crosland, M. Goodman,* and *A. Hockett.* A Curve of Growth Designed to Represent the Learning Process: *H. J. Ettlinger.*

MIND. Vol. XXXV, No. 140. Fifty Years of *Mind: W. R. Sorley.* Forms and Numbers: A Study in Platonic Metaphysics: *A. E. Taylor.* Psychology in its Relations to Philosophy and Science: *E. Rignano.* Discussions—James Ward on Sense and Thought: *M. Ward* and *G. F. Stout.* Mr. Randle on Sensations and Projection: *C. A. Strong.* The Truth of Propositions: *John Anderson.*

PSYCHOLOGICAL BULLETIN. Vol. 23, 9. Special Reviews and Summaries—Motor Automatisms and Reflex Action: *F. Fearing.* Sleep: *H. M. Johnson, T. H. Swan,* and *G. E. Weigand.* Hypnotism: *P. C. Young.*

JOURNAL OF EDUCATIONAL PSYCHOLOGY. Vol. XVII, 7. A Study of the Rôle of Visual Perception, Intelligence, and Certain Associative Processes in Reading and Spelling: *A. I. Gates.* The Scoring of Individual Performance: *L. L. Thurstone.* Variations of the Product-Moment (Pearson) Cœfficient of Correlation: *P. M. Symonds.* Accuracy in Scoring Group Intelligence Tests: *R. Pintner.* Further Studies on the Reliability of Reading Tests: *W. F. Current* and *G. M. Ruch.* Relation of Intelligence to Trait Characteristics: *W. H. Hughes.*

THE AMERICAN JOURNAL OF PSYCHOLOGY. Vol. XXXVII, 4. An Experimental Investigation of the Determinants of Apparent Visual Movement: *H. R. DeSilva.* Mescal Visions and Eidetic Vision: *N. Klüver. Gestalt* Psychology and Motor Psychology: *W. M. Washburn.* What is Empirical Psychology? *L. Carmichael.* The Effect of Varying Periods of Adaptation of the Flight of Colors: *A. M. Shuey.* Effect of Serial Position upon Memorization: *E. S. Robinson* and *M. A. Brown.* The Biological Conception of Libido: *K. C. Mukherji.* The Mechanism of Consciousness—Images: *F. R. Bichowsky.* The Effect of Suggestions on the Judgment of Facial Expression of Emotion: *E. Jarden* and *S. W. Fernberger.* Synæsthesis—"Pressury" Cold: *K. M. Dallenbach.* On the Number of Articles of Psychological Interest published in the Different Languages (1916–1925): *S. W. Fernberger.* Development of Laboratory Equipment in Psychology in the United States: *C. A. Ruckmick.* The Elementary Courses in Psychology: *M. Schoen.*

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. 100, 3 u. 4. Willenshemmung und Association: *M. Simoneit.* Beobachtungen mit einer Maus: *D. Katz.* Ein Vibrator zu psychologischen Zwecken: *F.*

Noldt. Ueber eine Orientierungstauschung: *A. Kirschmann.* Die Tagessichtbarkeit der Sterne: *J. Plassmann.* Vergleichende Untersuchungen zur Psychologie der optischen Wahrnehmungsvorgänge—II, Ueber die teilinhaltliche Beachtung von Form und Farbe beim Haushuhn: *O. Kroh* u. *R. Scholl.*

THE PEDAGOGICAL SEMINARY. Vol. XXXIII, No. 3. Purposive Experience: *W. McDougall.* Stanford Binet Retests of 441 School Children: *G. Hildreth.* The Relation of Dentition to Mental Age: *F. J. Perkins.* Color Preferences and Color Associations: *R. M. Dorcus.* Performance Tests for Three-, Four-, and Five-Year-Old Children: *N. Bayley.* A Comparison of the Play Activities of Town and Country Children: *H. C. Lehman.* Community Differences in Play Behavior: *H. C. Lehman.* Personal Estimates of Character Traits: *R. S. Uhrbrock.* Talkativeness about, in Relation to Knowledge of, Social Concepts in Children: *H. Meltzer.* The Arbeitsschule in Germany: *A. E. Meyer.* Mental Test and Other Concomitants of Some Native Born White Women Criminals: *C. Murchison.* Mental Test and Other Concomitants of Some Negro Women Criminals: *C. Murchison.*

Gent, Werner: Die Philosophie des Raumes und der Zeit. Historische, Kritische, und Analytische Untersuchungen. Die geschichte der Begriffe des Raumes und der Zeit von Aristoteles bis zum vorkritischen Kant (1768). Bonn: Freidrich Cohen. 1926. xi + 273 pp. 10 M.

Hocking, William Ernest: Man and the State. New Haven: Yale University Press. 1926. xv + 403 pp. $4.00.

Hocking, William Ernest: The Present Status of the Philosophy of Law and of Rights. New Haven: Yale University Press. 1926. 97 pp. $2.00.

Keyser, Cassius J.: Thinking about Thinking. New York: E. P. Dutton & Co. 1926. 91 pp. $1.00.

Lewis, Gilbert Newton: The Anatomy of Science. New Haven: Yale University Press. 1926. ix + 221 pp. $3.00.

Schmalhausen, Samuel D: Humanizing Education. New York: The New Education Publishing Co. 1926. 343 pp.

Habert, O.: Le Primat de l'Intelligence dans l'Histoire de la Pensée. (Initiation à la Philosophie.) Paris: Gabriel Beauchesne. 1926. xv + 448 pp. 30 fr.

Perry, Ralph Barton: General Theory of Value. New York: Longmans, Green & Co. 1926. xvii + 702 pp. $6.00.

von Uexküll, J.: Theoretical Biology. (International Library of Psychology, Philosophy, and Scientific Method.) New York: Harcourt, Brace & Co., Inc. London: Kegan Paul, Trench, Trubner & Co. 1926. xvi + 362 pp. $2.00.

Wilson, George A.: The Self and Its World. New York: Macmillan Co. 1926. x + 383 pp. $2.20.

Zepf, Max: Augustins Confessiones. (Heidelberger Abhandlungen zur Philosophie und ihrer Geschichte—herausgegeben von Ernst Hoffman und Heinrich Rickert.) Tübingen: J. C. B. Mohr (Paul Siebeck). 1926. iv + 105 pp. 4.20 M.

NOTES AND NEWS

Professor Surendranath Dasgupta of Presidency College, Calcutta, gave a series of six lectures at Northwestern University on the Norman Wait Harris Foundation, October 12–19, 1926, discussing "The Development of Indian Mysticism," under the following headings: (1) Sacrificial Mysticism; (2) The Mysticism of the Upanishads; (3) Yoga Mysticism; (4) Buddhist Mysticism; (5) Devotional (Bhakti) Mysticism; (6) Devotional Mysticism of the Alwars, Kabir, etc.

Professor Warner Fite's *Moral Philosophy* (The Dial Press, N. Y.) has been reprinted by Methuen & Co., London, under the title, *An Adventure in Moral Philosophy.*

Dr. Karl Schmidt of Cambridge, Mass., has been appointed Visiting Lecturer in Philosophy for the first semester, 1926–27, at Northwestern University, and will offer work in modern logical theory. Mr. Kenneth Smoke has been appointed Assistant in Philosophy.

The 1926 Meeting of the American Psychological Association will take place at the University of Pennsylvania, December 28, 29, and 30. So far as possible the papers of general and theoretical interest will be placed in the session of Tuesday, December 28. The business meeting will be held Tuesday evening. In place of an afternoon session devoted to a Symposium, the Program Committee hopes to schedule a sufficient number of Round Table conferences to occupy Wednesday afternoon. The annual dinner of the Association, followed by the Presidential Address and smoker, will be held on Wednesday evening. Thursday, December 30, will be devoted to session of the Section of Clinical Psychology.